An Address

ON

THE MEDICAL HISTORY OF MR. AND
MRS. SAMUEL PEPYS.*Read before the Abernethian Society on March 6th, 1895.¹*By D'ARCY POWER, M.B. OXON., F.R.C.S. ENG.,
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MR. PRESIDENT AND GENTLEMEN,—Some of you may perhaps think that I owe the society an apology for bringing before it such a paper as that which I propose to read. I do not think so. The older we get and the more the cares of this world threaten us, the more necessary is it to have a hobby. We need not ride it so as to be a nuisance to our friends, but in reason we are better for it; and if, as in my case, the hobby leads us to become intimately acquainted with the manner of life and thoughts of a bygone age, it is, I humbly conceive, an advantage. We are too apt to think that everything at the present day has reached its acme of perfection. It is not so; *vivere fortes ante Agamemnona multi* is as true now as when Horace wrote it nearly two thousand years ago. To condemn our ancestors is the vice of imperfect knowledge and of a second-rate education. We can learn from the past quite as much as from the present, and the knowledge which we acquire for ourselves is the better if it be founded upon a historical basis. Pepys is remarkable for the plain and unvarnished accounts which he gives of the facts coming under his notice during the eight years succeeding the Restoration of Charles II. The details of his own illnesses and of those of his wife are as clear as everything else in his Diary. From his accounts we can gather very much more than it would be possible to do had one of the surgeons, or, still worse, one of the physicians, who attended him left us an even more detailed description of his ailments. I think that there is nothing so difficult to determine from contemporary sources as the nature of an illness occurring during the sixteenth, seventeenth, or eighteenth centuries. The humoralist doctrines held sway during this period, as they had done since the beginnings of medicine, and the symptoms of the patient are so overlaid by the theories of his medical attendant that it is often impossible to arrange them in a sufficient sequence to obtain even an approximate diagnosis. The pathology of this date was humoralism tinged with methodism—the doctrine of Themison of Laodicea allied with that of Hippocrates and Galen.

Pepys, like Montaigne, has dissected himself so completely that it is no sacrilege to carry the process farther and lay bare his physical infirmities as thoroughly as he has exhibited to us his many psychological weaknesses, for we shall see that the one depended to some extent upon the other. So much has been written of Pepys that it is only necessary to remind you that he was descended from an old East Anglian family of yeomen farmers, that he was born on Feb. 23rd, 1632–3, and that at the age of twenty-five he married Elizabeth St. Michel, who was then only fifteen. His Diary commences on Jan. 1st, 1659–60, two years after he had been cut successfully for stone at the house of Mrs. Turner in Salisbury-court, Fleet-street, by James Pearse, who was afterwards surgeon to Charles II. and the Duke of York, and Master of the Barber Surgeons' Company in 1675. The tendency to stone was doubtless an inheritance bequeathed to Pepys by his eastern county ancestors, and it appears to have descended to him through the maternal side, for he relates (Nov. 4th, 1660) that his mother was "in greater and greater pain of the stone" when he went to visit her, and (Dec. 21st, 1660) that "my aunt at Brampton has voided a great stone (the first time that ever I heard she was troubled therewith)." He also informs us (Jan. 27th, 1662–3) that his brother John, who had just put on his bachelor's cap at Cambridge, "hath the pain of the stone and makes bloody water with great pain, it beginning just as mine did. I pray God help him." Evelyn, the contemporary diarist, says that the stone removed from Pepys' bladder

was as large as a tennis ball. It weighed, therefore, about two ounces, and I have little doubt that it consisted of uric acid, or of a uric acid nucleus with peripheral layers of ammonium urate, for the recorded symptoms do not in any way point to a mulberry calculus, and it was certainly of renal origin. It may perhaps be found some day, for Pepys treasured it for many years, and in 1684 he paid 24s. for a case in which to keep it. Although the stone was successfully removed on March 26th, 1658—when he was twenty-six years old and had been married for three years—Pepys suffered throughout the period covered by the Diary from certain symptoms in part due to the operation and in part to the formation of fresh stones in his kidney. These renal calculi only once found their way into his bladder, for on March 7th, 1664–5, he passed two after an attack of renal colic. When he died at the age of seventy a nest of seven stones was found in his left kidney. These calculi were, I believe, embedded from the beginning in the renal cortex—a rather unusual situation—and it is to this accident of position that Pepys owes his long life and his comparative immunity from symptoms, for in such cases the secreting substance of the kidney does not suffer, except in the immediate neighbourhood of the stones. He had no increased frequency of micturition, for he would certainly have noted the fact when his nights had been disturbed from such a cause. He had occasional attacks of pain, which were increased by walking, but not by riding. He hardly ever suffered from typical renal colic, but he repeatedly had attacks of pain radiating along his spermatic cord. He never passed blood, and only once in a way did his urine contain phosphates and mucus. These symptoms all point to a cortical stone which would have led him, had he now been living, to have had his kidney opened and the calculi removed, and he would thus have been spared many days of pain and anxiety. The symptoms detailed in his Diary are so explicit that it is possible to ascertain when the calculi were formed or at any rate when his kidney underwent changes in connexion with the presence of the calculi. He had several atypical attacks of renal colic. The first one noted in detail was on Dec. 27th, 1660. Again, on Aug. 1st, 1662, he complains of pain. This attack must have been transient, for on the following day he rode to Rochester, and a few weeks afterwards to Cambridge, on both occasions without producing further symptoms. On Dec. 31st, 1662, he was "very weary and in a little pain from my riding uneasily to-night in the coach." Six years after he had been cut for stone (April 9th, 1664) he says: "I did wake about one o'clock in the morning, a thing I most rarely do, and pissed a little with great pain, continued sleepy, but in a high fever all night, fiery hot, and in some pain." Later in the day he expresses himself as "sick in my stomach and vomited, which I do not use to do." This attack he himself thought was a threatening of ague, but I am more inclined to consider it as marking the formation of a renal calculus, for before the attack became acute he had been complaining of severe pain in his testes from the mere act of crossing his legs. He suffered for many months in 1663 from a pain referred along the course of his spermatic cord, and the least irritation set up an acute or subacute orchitis which (March 26th, 1664) he thinks is "very strange and troublesome to me, though upon the speedy applying of a poultice it goes down again and in two days I am well." The poultice consisted of (Oct. 18th, 1661) "a good handful of bran with half a pint of vinegar and a pint of water, boiled till it be thick, and then a spoonful of honey put to it and so spread in a cloth and laid to it." These attacks of colic were sometimes attended by other symptoms which point to the extension of the inflammatory processes through the perinephric tissue to the posterior surface of the descending colon, where it set up a slight enteritis, leading to constipation from paralysis of the intestinal wall. Thus he gives the following account of such an attack and its cause (June 13th, 1661): "We went toward London in our boat. Pulled off our stockings and bathed our legs a great while in the river, which I had not done some years before so to the tavern, where we drank a great deal both wine and beer. So we parted hence and went home with Mr. Falconer, who did give us cherries and good wine. So to boat, and young Poole took us on board the *Charity* and gave us wine there, with which I had full enough, and so to our wherry again and there fell asleep." He reports himself sorrowfully on the following day as "having got a great cold by my playing the fool in the water yesterday, so that I

¹ The meeting was postponed on account of the funeral of Sir William S. Savory, Bart., consulting surgeon to St. Bartholomew's Hospital. No. 3744.

was in great pain and went not to the office at all." He had a worse attack on May 14th, 1664, and it seems to have begun with some cystitis. He describes it very graphically: "Up, full of pain, I believe by cold got yesterday, so to the office where we sat, and after office home to dinner, being in extraordinary pain. After dinner my pain increasing I was forced to go to bed, and by-and-by my pain rose to be as great as ever I remember it was in any fit of the stone both in the lower part of my belly and in my back also. No wind could I break. I took a glyster, but it brought away but little and my height of pain followed it. At last after two hours lying thus in extraordinary anguish, crying and roaring, I know not what, whether it was my great sweating that may do it, but on getting by chance among my other tumblings upon my knees in bed my pain began to grow less and less till in an hour after I was in very little pain, but could break no wind nor make any water and so continued and slept well all night." Although the acute symptoms subsided and he was able to get about and transact business, it was not until May 19th that he was able to write: "A pretty good stool, and broke wind also." He soon had a fresh attack, and a few days later he sent for Mr. Hollyard, his surgeon, who diagnosed a stone and gave him something to dissolve it. The pain, however, continued, and, as he was not satisfied with the progress he made under Mr. Hollyard's treatment, Dr. Burnett was summoned on July 1st, 1664, "who assures me that I have an ulcer either in the kidneys or bladder, for from my water which he saw yesterday he is sure the sediment is not slime gathered by heat, but is direct pusse. He did write me down some direction what to do for it, but not with the satisfaction I expected. I did give him a piece, with good hopes, however, that his advice will be of use to me." The poor man, however, required but few more fees, for he died in August, 1665 from the plague, which he seems to have caught whilst making a post-mortem examination of one of its victims. If Pepys had but little faith in Dr. Burnett's prescription he trusted implicitly in the utility of a hare's foot to keep off these attacks of colic, and when (Jan. 20th, 1664-65) "Mr. Batten, in Westminster Hall, showed me my mistake that my hare's foot hath not a joint in it it is a strange thing how fancy works, for I no sooner almost handled his foote but my belly began to be loose and to break wind, and whereas I was in some pain yesterday and t'other day, and in fear of more to-day, I became very well and so continue." After such a proof of the efficacy of a hare's foot with a joint in it he got rid of the one he had carried and sent to buy a hare that he might obtain so invaluable a remedy in its proper form.

The attacks of pain from which Pepys suffered were only too often produced by less legitimate causes than cold due to playfulness, and there is no doubt that he suffered directly from the effects of the lateral lithotomy to which he had been subjected, and to the manipulations necessary to remove so large a stone from his bladder. The round shape of the stone, too, would render it difficult to remove, especially with the duckbill forceps and guiders then in use. Johnson's translation of Ambrose Paré's works was first published in 1649, so that we may be certain that the operation was performed after the manner which he describes and with such instruments as are there recommended. Paré says that, after the wound has been made laterally in the perineum and of the bigness of one's thumb, "some one of the silver instruments called by the name of guiders are thrust into the wound as the probe [i.e., the staff] is withdrawn from the bladder. The guiders are then to be thrust and turned up and down in the bladder, and are at length to be staid there by putting in the pin. Then must they be held betwixt the surgeon's fingers. It will also be necessary for the surgeon to put another instrument called the ducks-bill between the two guiders into the capacity of the bladder; hee must thrust it in somewhat violently, and dilate it so thrust in with both his hands, turning it everie way to enlarge the wound as much as shall be sufficient for the admitting the other instruments which are to be put into the bladder: yet it is far better for the patient, if that the wound may with this one instrument be sufficiently dilated, and the stone pulled forth with the same, without the help of any other." Pepys was sterile, and no doubt exists in my mind that his sterility was due to the left ejaculator having been divided at the time of the operation, whilst the right one was so much bruised by the system of dilatation then employed that it afterwards became occluded. Le Dran states definitely

that injury was often done to seminal ducts in the old operation by the apparatus major, and although in a properly directed lateral incision the deep wound is external to the prostatic portion of the ejaculatory duct, Teevan² records four instances in which after lateral lithotomy there was no emission during sexual intercourse. It is certain that Pepys suffered some permanent injury from his operation, for he had repeated attacks of pain and swelling in his testes, which were independent of the referred pain already described. His testes remained functional for many years, and his prostatic secretion was always sufficiently abundant to prevent him suffering from any lack of emission. The local pain in his testes usually occurred, upon his own confession, when his sexual feelings had been unduly excited, so that it appears clear that the pain was associated with the functional activity of these organs. The mere act of getting drunk he takes but little account of, and it was an event of no infrequent occurrence in the earlier part of his career, for he confesses to sixteen times between April and November, 1661. He considers it troublesome, however, under the following conditions. He and two friends on Nov. 10th, 1661, "sent for two bottles of canary to the Rose, which did do me a great deal of hurt, and did trouble me all night, and indeed came home so out of order that I was loth to say prayers to-night, as I was used ever to do on Sundays, which my wife took notice of, and people of the house, which I am sorry for." Much of Pepys' incontinence must be attributed to the double irritation to which his genito-urinary system was subjected, for on the one hand his kidneys were in a state of constant but subacute irritation owing to the presence of a stone upon the left side, whilst on the other hand his testes, continually secreting, could not give vent to the semen in consequence of the blocked condition of the vasa deferentia. His long spells of sedentary office work and his rather gross habits of life no doubt tended to foster his sexual feelings.

The second great trial in Pepys' life was the trouble he had with his eyesight. He appears to have been ametropic from an early period, but it is clear that he had not used his eyes much during boyhood. He acquired a taste for reading soon after his marriage, and about the time the Diary opens he found that it was necessary for him to improve himself in many branches of education. His work first as Clerk of the Acts, and afterwards as Secretary to the Admiralty, and his post as a Clerk of the Privy Seal, demanded constant perusal of documents, and if we add to this his self-imposed labour of keeping a voluminous diary it is not a matter of any surprise that he soon complains of ocular strain due to such prolonged efforts to converge. He slightly injured his right eye on May 22nd, 1660, by holding his head too much over a gun which he fired off to the honour of the King when he came aboard the fleet which carried him back to England at the Restoration. The injury was soon cured, and it does not appear to have done any permanent injury. It is not until April 25th, 1662, that he complains of his eyesight. He then says: "I was much troubled in my eyes, by reason of the healths I have this day been forced to drink." He began to have a watery eye in the following year, for he says (March 2nd, 1663-4): "Up, my eye mightily out of order with the rheum that is fallen down into it," his left eye being more affected than the right. From this time the complaints about his eyes become more and more frequent, and it is clear that the error of refraction was somewhat greater in his left than in his right eye. He attributed his defective vision at first to cold and to a variety of causes, but he learnt the true cause after a time, and though he suspected it on July 31st, 1663, it is not until June 8th, 1664, that he states "my eyes did ake ready to drop out" after a long evening of writing notes in shorthand. He applied to Ed. Cocker on Oct. 5th, 1664, to ascertain "how I shall do to get some glasse or other to help my eyes by candle-light, and he tells me that he will bring me the helps he hath within a day or two and show me what to do." Cocker, the alleged author of the arithmetic and engraver of letters [1631-1675], whose memory we still commemorate when we say, "According to Cocker," appears to have suggested the use of a pair of green spectacles, which Pepys employed for many years. Increasing age, however, added presbyopia to his hypermetropia, and his sight at last became so bad that after trying many expedients he found himself unable to write up his Diary, which he concludes on May 31st, 1669, with the words: "And thus ends all that I

² Transactions of the Clinical Society, vol. vii., 1874, pp. 179-180.

doubt I shall ever be able to do with my own eyes in the keeping of my Journal, I being not able to do it any longer, having done now so long as to undo my eyes almost every time that I take a pen in my hand." The presbyopia no doubt increased, but he was able to transact the ordinary business of a useful life until May 26th, 1703, when he died.

The minor illnesses of Pepys are neither numerous nor interesting. He suffered from severe attacks of indigestion, usually caused by surfeits, and he records that after a visit to Epsom in July, 1663, which was then a fashionable watering-place, he suffered from a pile the result of the purging produced by a course of the waters, coupled with the additional riding exercise in which he indulged. He was in fear for some time lest the pile should prove a rupture, thereby displaying his lack of even the rudiments of surgical knowledge. He was extremely liable to catarrhal affections, for he was constantly catching cold; on one occasion it was from having his hair cut, on another from leaving off his periwig, and even from sitting without his hat at dinner. The cold was usually cured by simple remedies and left no after-effects, but on one or two occasions he had attacks of tonsillitis. He says (June 12th, 1663) that he was "mightily troubled all night and next morning with the palate of my mouth being down from some cold I took to-day sitting sweating in the playhouse and the wind blowing through the windows upon my head." He suffered, too, from boils, for on Feb. 8th, 1659-60, he records that he "went to bed with my head not well by too much drinking to-day, and I had a boil under my chin which troubled me cruelly." The boil increased in size and there was some stomatitis, for on the following day he "went home and got some alum to my mouth where I have the beginnings of a cancer, and had also a plaster to my boil underneath my chin. The scare of his having a cancer in his mouth subsided after Feb. 10th, when he had been into "London to Mr. Fage about the cancer in my mouth, which begins to grow dangerous, who gave me something for it." Pepys had repeated attacks of nettlerash, which came on annually as soon as the weather began to get cold in the autumn. He cured himself by keeping warm and sweating. He only records one occasion on which he was bled. It was on May 4th, 1662, a very hot Sunday, that he was let blood to the amount of sixteen ounces, when he began to be sick; "but lying upon my back I was presently well again, and did give [Mr. Hollyard, the surgeon] five shillings for his pains." He dined well after the operation and went out walking with his wife after dinner, "my arm being tied up with a black ribbon, our boy waiting on us with his sword, which this day he begins to wear to outdo Sir W. Pen's boy." A few days later he felt constrained to whip this boy with "my whip till I was not able to stir, and then, not being willing to let him go away a conqueror, I took him to task again and so to bed, my arm very weary"; and on several other occasions he administered "salt eel" to the boy, doubtless to neutralise the effect of the sword.

The illnesses of Mrs. Pepys are of less general interest than those of her husband. She was married at the age of fifteen years, so that she had been a wife for four years when the Diary commences. Mr. Wheatley remarks that it is a most curious fact that so methodical and careful a person as Pepys should be in doubt as to the date of his wedding day. Yet so it was, for the register certifies that he was married on Dec. 1st, 1655, in St. Margaret's Church, Westminster, and yet both he and his wife kept the anniversary of their marriage upon Oct. 10th in each year. Mrs. Pepys was childless owing, as I have endeavoured to show, to the sterility of her husband. She had, however, on several occasions a belief that she was pregnant; indeed, the Diary opens with the statement that "my wife gave me hopes of her being with child." Again, on Nov. 6th, 1663, "This morning waking my wife was mighty earnest with me to persuade me that she should prove with child, which, if it be, let it come and welcome." The hope was belied, however. In the following year, on Sept. 27th, 1664, he notes: "So home, where my wife, having (after all her merry discourse of being with child) her months upon her, is gone to bed." The Diary for several years contains an almost uninterrupted account of the pain from which Mrs. Pepys suffered monthly. It was so severe that it quite incapacitated her from doing any household work, and it usually compelled her to keep in bed. She seems to have met the trial bravely, lying up when she was forced to do so, but getting about again as soon as possible. As time wore on the entries about the pain

became fewer and fewer, so that the attacks doubtless became less marked. The pain during the worst period sometimes preceded the flow by a week, but it was more usually coincident with it, and in no case, so far as I can find, did it come on afterwards. It would, therefore, be of that variety to which the term spasmodic (neuralgic or obstructive) dysmenorrhœa is now applied—a condition which, as my friend Dr. Griffith points out to me, is often met with in childless women who have been married young. Mrs. Pepys had a long illness in the winter of 1663. It began, so far as I can ascertain, as an abscess in the vulva, though I think that it is more likely to have been ischio-rectal, pointing, perhaps, a little more anteriorly than is usual. It terminated in a fistula. The surgeon was called in, for Pepys records, on Nov. 16th, 1663, that "in the evening Mr. Hollyard came, and he and I about our great work to look upon my wife's malady, which he did, and it seems her great conflux of humours, heretofore that did use to swell there, did in breaking leave a hollow, which has since gone in further and further, till now it is near three inches deep, but, as God will have it, do not run into the bodyward, but keeps to the outside of the skin, and so he must be forced to cut it open all along, and which my heart I doubt will not serve for me to see done, and yet she will not have anybody else to see it done, no, not even her own mayds, and so I must do it, poor wretch, for her. To-morrow night he is to do it." On the following day, however, "Mr. Hollyard [Thos. Hollier? one of Sergeant-Surgeon Wiseman's wardens in the Barber Surgeons' Company in 1665³] being come to my wife, and there she being in bed, he and I alone to look again upon her [perineum], and there he do find that though it would not be much pain, yet she is so fearful, and the thing will be somewhat painful in the tending, which I shall not be able to look after, but must require a nurse and people about her, so that upon second thoughts he believes that a fomentation will do as well, and though it will be troublesome yet no pain, and what her mayd will be able to do without knowing directly what it is, but only that it may be for the piles. For though it be nothing but what is honest, yet my wife is loth to give occasion to discourse concerning it." The affection ran its usual tedious course; but eventually the fistula healed, and shortly after Christmas Pepys "went after dinner straight on foot to Mr. Hollyard's, and there paid him £3 in full for his physic and work to my wife [about the abscess], but whether it is cured for ever or no I cannot tell, but he says it will never come to anything, though it may be it may ooze now and then a little." I cannot find out when the abscess causing this fistula began, but so far back as 1661 there is an entry that she was suffering from some abdominal trouble, for on May 12th, 1661, "My wife had a troublesome night this night and in great pain, but about the morning her swelling broke, and she was in great ease presently as she useth to be. So I put in a vent (which Dr. Williams [of Eltham?] sent me yesterday) into the hole to keep it open till all the matter be come out, and so I question not that she will soon be well again." It was some time before the abscess healed, for on Midsummer Day Pepys went with his father "and Dr. Williams (who is come to see my wife, whose soare belly is now grown dangerous as she thinks) to the ordinary over against the Exchange, where we dined and had great wrangling with the master of the house when the reckoning was brought to us, he setting down exceeding high everything." There is, however, no further entry in regard to this illness of his wife, though it may have been the starting point of the subsequent fistula.

Mrs. Pepys suffered from earache and from toothache on one or two occasions, but otherwise she appears to have been a tolerably healthy woman. Her earache was cured on June 27th, 1662, by "Mr. Holliard, who had been with my wife to-day, and cured her of her pain in her ear by taking out a most prodigious quantity of hard wax that had hardened itself in the bottom of the ear, of which I am very glad." On Sept. 14th, 1663, she fainted, probably from overfatigue, for setting out from London betimes she came in the evening to Buntingford on the Cambridge road, twenty-nine miles from London, "where my wife by drinking some cold beer, being hot herself, presently after 'lighting, begins to be sick, and became so pale, and I alone with her in a great chamber there, that I thought she would have died, and so in great horror, and having a great

³ The College of Physicians in 1669 bought his house and grounds extending from Warwick-lane to the City walls for £1200 to build a new college in place of the one destroyed by the Great Fire in 1666, which was situated in Amen-corner.

tryall of my true love and passion for her, called the mayds and mistresse of the house, and so with some strong water, and after a little vomit, she came to be pretty well again: and so to bed, and I having put her to bed with great content, I called in my company and supped in the chamber by her, and being very merry in talk, supped and then parted, and I to bed and lay very well." She was well next day, for they went on to Godmanchester [Gumcester] in Huntingdon, and sixty miles from London, where they ate and drank and then to Brampton in Suffolk, which was their journey's end. Once, and once only, she got a black eye—on Dec. 19th, 1664. "Going to bed betimes last night we waked betimes, and from our people's being forced to take the key to go out to light a candle I was very angry, and begun to find fault with my wife for not commanding her servants as she ought. Thereupon, she giving me some cross answer, I did strike her over her left eye such a blow as the poor wretch did cry out, and was in great pain, but yet her spirit was such as to endeavour to bite and scratch me. But I, coying with her, made her leave crying, and sent for butter and parsley, and friends presently one with another, and I up vexed at my heart to think what I had done, for she was forced to lay a poultice or something to her eye all day, and is black, and the people of the house observed it." We have no detailed account of the death of Mrs. Pepys. The fear of becoming blind led to the abrupt termination of the Diary in 1669. Pepys obtained leave of absence from the duties of his office, and set out on a tour through France and Holland, accompanied by his wife. Some months after his return he spoke of his journey as having been "full of health and content," but no sooner had he and his wife returned to London than the latter became seriously ill with a fever. The disease took a fatal turn, and on Nov. 10th, 1669, Elizabeth Pepys died at the early age of twenty-nine years, to the great grief of her husband. Looking to the time of year, to the fact that she had lately returned home from a trip abroad, and to her age, an attack of typhoid fever seems to be the most plausible cause of her premature death, but such a suggestion must be the merest guess. She is buried in St. Olave's Church, Hart-street.

I cannot terminate this short essay without thanking Mr. H. B. Wheatley, the latest and best editor of "Pepys' Diary," and his truest friend, for the kindness with which he has assisted me to certain medical details. In the exercise of a wise discretion, he thought it unnecessary to publish them in a work which, though a classic, is yet read by all classes of Her Majesty's subjects.⁴

THE NEUROTIC ELEMENT IN PULMONARY CONSUMPTION.¹

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THAT disorder of the nervous system plays a prominent part in the production of pulmonary consumption I have long been convinced, and in the various papers which I have written on this subject during the last seven or eight years I have made an effort to show the data on which this theory rests. I now call further attention to this interesting subject. I am by no means the first advocate of the nervous theory of pulmonary consumption. As far back as 1842 M. Cheneau² attributed this disease directly to disorder of the pneumogastric nerves, and indirectly to an abnormal condition of the central nervous system. In 1850 Dr. J. C. Holland defined pulmonary consumption as a disordered condition of the nervous system. Dr. Copland regarded tuberculosis and scrofula as being dependent on abnormal conditions of the nervous system and believed that the accompanying disturbances of digestion, assimilation, circulation, and even the local determination of these diseases are traceable to the

state of the nervous influence of these parts. Dr. Laycock, in his clinical lectures on Physiognomical Diagnosis of Disease,³ says that "defective pneumogastric innervation consequent upon a loss of cerebro-spinal power is a very common predisposing and exciting cause of phthisis." Dr. Clifford Allbutt,⁴ in discussing the pathology of a variety of phthisis, states: "The more, however, I study the relations of the disease the more I am satisfied that the lung mischief is also a neurosis—by which I mean that the lesion is one not originating in the local tissues, but in the nervous system." Dr. Clouston, in his recent work, "The Neuroses of Development," says (p. 92) that "facts seem to show that if tuberculosis cannot itself be called a neurosis, it is in most cases dependent for its existence on a trophic neurosis or bears the closest affinity to it." From this it will be seen that this subject has interested some of the most prominent minds in the medical profession during the last fifty years. Indeed, when the richness and fertility of this field of study are surveyed, one is astonished to find how completely it has fallen into abeyance at the present time. It is practically forgotten, yet I believe that a full and thorough examination of its premisses will give us proof of the most convincing character that it is the only key to solve the complex etiology of the disease under consideration. At the very outset I would lay down the proposition that any agent or influence which has the power of disordering or of interfering with the integrity of the respiratory nerves in particular, or with the nervous system in general, also has the power of producing pulmonary phthisis and other forms of lung disease. Thus, in a recent canvass of the pathological literature of this subject I found the records of over a hundred cases of phthisis in which the pneumogastric nerves, or the respiratory centres, were compressed or injured or diseased in connexion with syphilis, alcoholism, diphtheria, measles, diabetes, multiple neuritis, locomotor ataxia, bulbar paralysis, tumour of the pons and medulla oblongata, &c.

Phthisis follows in the wake of many nerve poisons. Mercurial tremor and paralysis are well known, but the investigation of Kussmaul develops the fact that the majority of those who suffer from *mercurial intoxication*, as looking-glass gilders, mercury miners, &c. are very liable to do, also fall victims to pulmonary phthisis. Even the vitality of the offspring of those who suffer from mercurial intoxication is vitiated, for it is said that scrofula, rickets, and pulmonary phthisis are exceedingly prevalent in the children of those who are engaged in mercury manufacture, and that it induces abortion and still-births among female employees. Dr. Bäumlér cites an interesting instance of mercurial intoxication in a family. A male aged sixty-nine became a gilder when thirty-nine years old and worked as such for twenty-five years, when he was compelled to seek other employment on account of serious mercurial poisoning. He was well and worked for twelve years, when he became salivated and suffered from stuttering, tremor, loss of memory, shedding of teeth, &c. He was married three times, and all his wives followed the occupation of gilding. From the first union there were four children, one of whom died from gangrene of both feet, and the other three and the mother died from phthisis. From the second union there were two children, who, with their mother, died from phthisis. From the third union all the children who were born before the mother was employed in gilding were well, while one who was born after this period was a weakling and died from a cause not given, but the mother died from phthisis.

Lead is another metal which has the power of deteriorating the nervous system and of provoking pulmonary phthisis. Statistics show that the disease is from two to three times more prevalent among lead workers in Wales than it is among farmers living in the same locality, or among the general population of England and Wales.

Among the agents which are most potent in the production of phthisis I would place the abuse of *alcohol*; and I would call the attention to this subject of those who are directly engaged in the study of inebriety. I know that my friend Dr. Crothers has already made some valuable contributions to this question, and I hope to hear of his further experience in this direction. It is well known that this agent exerts a poisonous influence on the nervous system, and especially on the peripheral nerves. Very frequently the nerves do not show any marked changes, but on closer examination evidence of parenchymatous degeneration with more or less

⁴ It is right to say that we have omitted some of the quotations from the Diary, Mr. Pepys' language being occasionally too blunt and outspoken for publication even in a medical journal.—ED. L.

¹ A paper read before the Section on Neurology and Medical Jurisprudence of the American Medical Association at its meeting in Baltimore, May 7th, 1895.

² De l'Influence de la Huitième Paire dans la Production de la Phthisie. Paris, 1842.

³ Medical Times and Gazette, 1862, p. 205. ⁴ Ibid., vol. ii., p. 613.